U.S. Fish & Wildlife Service

The Coastal Program

Success in Chesapeake Bay

Caring for Our Coastal Habitats

Bud Jenkins, a volunteer since 1987, searches with a crab net for wild celery, a valuable submerged aquatic plant. Photo: Peter Bergstrom, USFWS

The first U.S. Fish and Wildlife Service Coastal Program was established in 1988 to support the resource protection and restoration efforts of the newly-formed Chesapeake Bay Program. The Chesapeake Bay Program is a watershed restoration partnership among the States of Pennsylvania, Maryland, and Virginia, the District of Columbia, and the Federal government. The Service's Coastal Program has provided both technical and financial assistance for the Bay Program's protection and restoration efforts. Three of the program's most significant efforts involve the restoration bay grasses, known as submerged aquatic vegetation, stream assessment and restoration, and invasive species control.

Saving Aquatic Vegetation

Submerged aquatic vegetation is a keystone component of the Chesapeake Bay shallow water ecosystem. These underwater plants provide habitat for juvenile and adult fish and shellfish, provide food for waterfowl, fish and mammals, absorb wave energy and nutrients, produce oxygen, and improve water clarity. These plants are also indicators of good water quality, since they are abundant only where nutrient levels are low and water clarity is high.

The Cheasapeake Bay Coastal Program has taken a lead role within the Chesapeake Bay Program to develop a submerged aquatic vegtation protection plan. This plan is a comprehensive effort to monitor, research, protect and restore the Chesapeake Bay's submerged aquatic vegetation and to provide information about these plants and their importance to the public. We continue to take a lead role in implementing this plan.

One of the goals of the Chesapeake Bay Program is to increase the amount of Bay grass in the Cheasapeake to 114,000 acres, baywide by 2005. This area would be roughly twice the acreage found in 1996. Achieving this goal depends on improving water quality, protecting existing beds, and restoring bay grasses to areas where it was previously known to exist. Acreage of bay grasses hit a low point in 1984, but has increased most years since then. This recovery is linked to improved water quality, increased protection efforts, and improved restoration techniques.

It's A Jungle Down There!

Underwater grass beds serve as critical habitat for many types of aquatic life. Barnacles and scallop larvae attach to the leaves and stems of eelgrass in the salty waters of the lower Bay. Fish such as bluegill and largemouth bass live in the freshwater grasses of the upper Bay. Minnows and other small fish like juvenile striped bass, and blue crabs seek protection and food in the grass beds. Microscopic zooplankton feed on the decaying underwater plants and, in turn, are food for larger Bay organisms, such as fish and clams. In the fall and winter, migrating and wintering waterfowl search the sediment for nutritious seeds, roots, and tubers.

Coastal Program biologists assess the health of streams within the Cheaspeake Bay watershed Photo: USFWS

Stream Assessment and Restoration Program

To address stream resource issues in the Chesapeake Bay watershed, the Service's Chesapeake Bay Field Office developed a stream assessment and restoration program (Stream Team). This program provides assistance to landowners and government agencies in evaluating and restoring stream systems, including :

- Training and education in stream assessment and restoration;
- Technical assistance; and
- Designing and constructing demonstration projects.

Some examples of Stream Team projects include:

- together with partners, sponsoring a series of natural stream design workshops, and River Short Courses at the Service's National Conservation Training Center;
- working with 15 other Federal agencies to develop a stream corridor restoration handbook, which advocates a multi-disciplinary approach to stream corridor restoration; and
- assessing design and monitoring plans for restoration projects throughout the Chesapeake Bay watershed for our government partners. The Stream Team is assisting the Washington, DC Department of Health in evaluating a tributary of the Anacostia River, for restoration and management opportunities.

Invasive Species

Invasive species are having severe negative ecological effects on both terrestrial and aquatic resources in the Cheaspeake Bay watershed. The Chesapeake Bay Coastal Program is working to prevent additional new species from invading the Bay, and to control those that already occur in critical coastal habitat. Examples of these efforts include:

Non-native Live Bait Introductions

Introductions of aquatic invasive species by anglers dumping live bait is perceived as a serious problem. Some of these live bait organisms are imported into the United States from other countries. We are assessing the risk of introducing additional non-native species into U.S. waters through this practice.

Nutria Control/Marsh Restoration Pilot Project

Nutria, a semi-aquatic rodent introduced from South America, has accelerated the loss of brackish marshes in the Chesapeake Bay watershed. To combat the effects of nutria, the Chesapeake Bay Coastal Program staff have provided major support to a project that is developing strategies for reducing nutria populations in the Chesapeake Bay watershed. This project will reduce nutria populations to controllable levels, restore marsh habitats, and promote public understanding of the importance of preserving Maryland's wetlands. The pilot project is being conducted on and near Blackwater National Wildlife Refuge.

Phragmites

Phragmites is a non-native wetland grass that agressively grows and chokes out native plants in shallow marsh areas. The Chesapeake Bay Coastal Program staff conducted an aerial survey of phragmites in the tidal marshes of the Chesapeake Bay. Data from this survey are being used to target areas for phragmites control where marsh habitat has not been completely dominated by this highly invasive plant. To date, we worked with partners to control several hundred acres of phragmites threatening more than 17,800 acres of estuarine and freshwater emergent wetlands on the Rappahannock River in Virginia, and to control 35 acres of phragmites threatening 1,200 acres of marsh in Somerset County, Maryland.

A coastal marsh infested with phragmites. Photo: USFWS

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